

REMARKS

The Official Action of May 4, 2010 constitutes a final rejection of the claims. The Action and the references cited therein have been carefully reviewed. The present response is being submitted within two months of the May 4, 2010 mailing date of the Action. Favorable reconsideration and allowance of the claims are requested in view of the foregoing amendments and the following remarks.

I. Claim Status and Amendments

Claims 1, 5, 6, 8-13, and 20 presently appear in this application. Claims 8-13 and 20 have been withdrawn as non-elected subject matter. Claims 1, 5, and 6 have been examined on the merits and stand rejected. No claims have been allowed.

The election of species requirement is again respectfully traversed for the reasons set forth in the responses filed May 1, 2009 and January 22, 2010, which arguments are reiterated herein by reference. It is again noted that withdrawn claims 8-13 and 20 depend, either directly or indirectly, on claim 1. For the reasons discussed in the last response, the withdrawn claims are believed to be generic in nature and encompass all of the species, including the elected species. In doing so, Applicants again ask why method claim 20 has been withdrawn in its entirety, rather

than being examined to the extent of the elected species, because the claim is directed to a method of using the tooth coating composition of claim 1, and in fact, it depends on claim 1. The claim is clearly generic in nature and encompasses the elected species. For this reason, please either withdrawal of the election requirement and/or examine claim 20 to the extent of the elected species, pursuant to Applicants' election and US practice.

By way of the present amendment, claim 1 has been amended to specify that the rosin is in a range of 5 wt.% to 15 wt.%, and the total content of the shellac and the rosin is in a range of 15 wt.% to 25 wt.% in the entire composition. Support can be found throughout the original claims (e.g., original claims 3-4) and in the disclosure, including the data of Examples 1-8, the comparative examples 1-6 and the results of tests 1-4. See, for instance, paragraph [0032] of the corresponding published patent application No. 20070041913 (which discloses rosin in a range of 5 to 20 wt%), and Examples 1-2, and 4 at paragraphs [0033] to [0034] and [0037] (which disclose 15% rosin).

Claim 20 has been amended to correct a punctuation error by removing the extra period at the end of the claim.

No new matter has been added.

Claims 1, 5, 6, 8-13, and 20 will remain pending upon entry of this amendment, and these claims define patentable subject matter warranting their allowance for the reasons discussed herein.

II. Foreign Priority

Applicants again note that the instant application claims priority from a corresponding foreign priority application filed in Japan. A a certified copy of the priority application should be of record at the USPTO. Please acknowledge receipt of Applicants' foreign priority claim and the papers filed under Section 119.

III. Prior Art Rejection

Claims 1, 5, and 6 have rejected under 35 U.S.C. § 103(a) as being obvious over US 2002/0119105 in view of US 5,213,615 for the reasons on pages 2-4 of the Office Action.

The rejection is respectfully traversed, as applied to the amended claims. The arguments in the response filed January 22, 2010 are reiterated herein by reference.

Claim 1, as amended, specifies that the content of the rosin is in a range of 5 wt.% to 15 wt.% in the entire composition, and the total content of the shellac and the rosin is in a range of 15 wt.% to 25 wt.% in the entire composition. It is again noted that neither US 2002/0119105 alone, or in combination with US 5,213,615, discloses or

suggests a tooth coating composition containing shellac, rosin, and their solvent in the claimed amounts. Indeed, the Examiner previously acknowledged such at page 6 of the Official Action dated July 22, 2009. Thus, neither reference discloses the effective range of shellac and rosin, as now recited in claim 1, i.e., rosin in a range of 5 wt.% to 15 wt.% and shellac in a range of 5 wt.% to 20 wt.% in the entire composition and the total content of the shellac and the rosin is in a range of 15 wt.% to 25 wt.% in the entire composition.

Nonetheless, the Examiner has maintained the rejection on the grounds that it would have been routine to optimize the amounts of the "other resin" as disclosed in US 2002/0119105 to adjust the amount of rosin to arrive at the claimed ranges.

In reply, it is well established that a *prima facie* case of obviousness based on optimization of ranges and/or overlapping ranges can be rebutted by showing the criticality of the claimed ranges (MPEP §2144.05, III). In this regard, it is respectfully submitted that the claimed amounts of shellac in a range of 5 wt.% to 20 wt.%, rosin in a range of 5 wt.% to 15 wt.%, and the total content of the shellac and the rosin in a range of 15 wt.% to 25 wt.% in the entire composition are critical in that they result in a tooth coating composition having surprising and unexpected

properties over anything that could be expected from the cited prior art references.

Support can be found in the examples in the disclosure, as summarized in the attached Table 3. This table summarizes the data of Examples 1-8, and comparative examples 1-6, and the result of tests 1-4. As can be seen from this data, in cases in which the content of rosin exceeded 15 wt% and in which the total content of the shellac and the rosin exceeded 25 wt% in Example 5, the tooth coating composition containing such did not get sufficient results in tests 1-4.

See also the discussion in paragraphs [0096] to [0100] of the instant disclosure, which discloses that mixing of shellac and rosin could efficiently suppress the coats from becoming opaque (Examples 1 to 4 and Examples 6 to 8).

See also the discussion at paragraph [0008], wherein it is disclosed that the claimed invention provides a tooth coating composition to be applied to form a coat giving luster similar to that of natural teeth, durability of the applied coat, excellence of hiding power, and high safety to human body in the case it is applied to teeth (natural teeth, artificial teeth, or artificial crowns of teeth) by using shellac and rosin in combination; and without losing the quick drying property, the resin concentration can be increased by well combining the different properties of the shellac and

rosin resins and accordingly, the strength of the coat can be heightened and the durability of the coat applied to teeth can be expanded.

See also paragraph [0010] of the instant disclosure, which discloses that if the content of the rosin to be added to a shellac ethanol solution is less than 1 wt. %, the effect of strengthening a coat is not so sufficient, and if it exceeds 30 wt. %, the composition becomes difficult to be used as a tooth coating agent due to difficulty in drying it.

Paragraph [0012] also discloses that if the total content of both the shellac and rosin is less than 10 wt. %, the strength of the coat is decreased and the hiding power of the color of teeth thereunder is decreased and therefore, no beautiful coat is obtained. On the other hand, if the total content of both is more than 31 wt. %, the quick drying property is deteriorated and the viscosity is too high to apply, resulting in easy formation of an uneven coat.

All of this is significant, because it points to the criticality of the specified amounts of shellac and rosin in the composition, as claimed. However, as noted by the Examiner at page 3 of the last Official Action dated July 22, 2009, US 5,213,615 discloses a composition containing 30% rosin, which is outside the 5 wt.% to 15 wt.% range of claim 1. Moreover, as discussed above, the data herein shows that

in cases in which the content of rosin exceeded 15 wt% and in which the total content of the shellac and the rosin exceeded 25 wt% (in Example 5), the tooth coating composition containing such did not get sufficient results in tests 1-4, as compared the claimed invention. Accordingly, this shows that the claimed ranges are critical as they result in compositions having superior properties over the prior art composition containing 30% rosin, as taught in US 5,213,615. Pursuant to US practice as enumerated at MPEP §2144.05, III, it is believed that such rebuts the Examiner's position that it would have been routine to optimize the amounts of the rosin to arrive at the claimed invention.

In fact, it could be said that this teaching in US 5,213,615 of a composition containing 30% rosin actually teaches away from the claimed amounts, because the skilled artisan, upon reading US 5,213,615, would not deviate from 30% rosin. This also points to the non-obviousness of the claims.

For these reasons, main claim 1 is believed to be novel and patentable over the combination of US 2002/0119105 and US 5,213,615. As all of the claims depend, either directly or indirectly, from claim 1, it is believed that the argument in favor of patentability of claim 1 suffices for all of the claims. Thus, the obviousness rejection is untenable and should be withdrawn.

Appln. No. 10/556,914
Amdt. dated June 9, 2010
Reply to Office Action of May 4, 2010

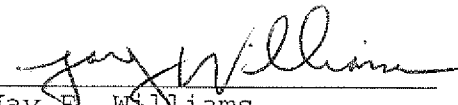
IV. Conclusion

Having addressed all the outstanding issues, this paper is believed to be fully responsive to the Office Action. It is respectfully submitted that the claims are in condition for allowance, and favorable action thereon is requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following item(s):

- Table 3

Table 3

Shellac + Rosin Tooth Coating Composition										
	Shellac wt%	Rosin wt%	Total wt%	drying time	luster	durability	removal easiness	hiding power	Total Evaluation	
Example 1	10	15	25	Δ	○	○	○	○	○	○
Example 2	10	15	25	○	○	○	○	○	○	○
Example 3	10	10	20	○	Δ	○	○	○	○	○
Example 4	10	15	25	Δ	○	○	○	○	○	○
Example 5	10	20	30	x	—	—	—	—	x	x
Example 6	10	15	25	○	Δ	○	○	○	○	○
Example 7	10	5	15	○	Δ	○	○	Δ	○	○
Example 8	10	5	15	○	Δ	○	○	Δ	○	○
Comparison 1	—	40	40	x	—	—	—	—	x	x
Comparison 2	—	20	20	x	Δ	x	○	○	x	x
Comparison 3	25	—	25	x	x	Δ	○	○	x	x
Comparison 4	10	—	10	○	x	○	○	Δ	x	x
Comparison 5	25	—	25	x	—	—	—	—	x	x
Comparison 6	25	—	25	x	—	—	—	—	x	x

Notes: In the cases of (Examples 1, 2, 4 and 6) and (Examples 7 and 8), the contents of shellac and rosin are the same, but a species of the subspecies are different.